

## Olmec (Mande) Loan Words in the Mayan, Mixe-Zoque and Taino Languages

Clyde Winters

Uthman dan Fodio Institute, Chicago, 60643

**Abstract:** Ortiz de Montellano, Haslip-Viera and Barbour (1997) argue that there is no linguistic evidence for Pre-Columbian contact between African and Amerind languages. Using comparative and historical linguistic methods the author outlines the evidence from the Otomi and Mayan languages which indicate the borrowing/copying of Manding/Mande lexical items by speakers of these languages in Pre-Columbian times.

**Key words:** Maya, Olmec, Taino

### INTRODUCTION

The artifacts archaeologist find through excavation can never tell us what language was spoken by a dead civilization several millennia ago, without the aid of written documents. There is considerable speculation on the language spoken by the Olmec people. Linguists have made three hypothesis regarding the original language spoken by the Olmec people:

- The Otomangue theory (Marcus, 1976)
- Mixe-Zoquean theory (Campbell, 1977; Kaufman, 1976; Justeson *et al.*, 1985)
- The Mande theory (Wiener, 1921; Winters, 1977, 1979, 1980, 1981, 1983, 1984a, b, 1986, 1997)

Marcus (1976) is strongly supported of the Otomanguean language theory for the Olmec. He believes that the Olmec religion is best explained by the Proto-Otomangue religion (Marcus, 1976). This hypothesis is not accepted because of the absence of linguistic material in support of the hypothesis.

The Mixe-Zoquean hypothesis for the Olmec language is based on the geographical distribution of Mixe-Zoquean speakers in areas where the Olmec civilization existed; and the evidence of Mixe Zoquean loan words in Mayan languages "diagnostic" of Olmec culture (Campbell, 1977; Kaufman, 1976).

Campbell (1977) argues that the cultural content of the alleged Mixe-Zoquean loans for ritual, calendric, incense terms. For example Mixe-Zoquean loans in Mayan languages include Quichean and Pocomchi, terms for the twenty year period and the number twenty; in Yucatec we find the Mixe-Zoquean loan for 'calendar priest'; and into K'iche and Kaqchikel we find Mixe-

Zoquean word for calendar (Campbell, 1999). Below are the major Mixe-Zoquean loans into the Mayan languages. They represent Mayan words that failed to meet the canonical form for Mayan roots:

Mixe-Zoquean	Mayan
*koya tomato	s-ko:ya
*pom V copal (incense)	porn
*cimah dipper ground	*cima
poh moon	*poya
may 'twenty'	may 'to count'

The alleged Mixe-Zoquean loans in the Mayan languages are not systematic. The appearance of a Mixe-Zoque word in this or that Mayan language, for example \*koya in Quichean, or kusi for calendar priest in Yucatec, the Mixe-Zoquean hypothesis is not based on a systematic finding of Mixe-Zoquean loans in the Mayan language.

This has led some researchers to reject this hypothesis, because the spatial distribution of Mixe-Zoquean languages does not support this hypothesis. Thomas A. Lee noted that: "closely [related] Mixe, Zoque and Popoluca languages are spoken in numerous villages in a mixed manner having little of no apparent semblance of linguistic or spatial unity". This linguistic fragmentation led Lee (1989) to make the following observation:

"the general assumption, made by the few investigators who have considered the situation, is that the modern linguistic pattern is the result of the disruption of the modern linguistic pattern is a result of the disruption of an old homogeneous language group by more powerful neighbors or invaders".

As a result, of the presence of alleged Mixe-Zoquean loan words in different Mayan languages in a non-systematic pattern representing diffusion from Mixe-Zoquean as suggested by Campbell (1977); this linguistic evidence of Mixe-Zoquean loans in the Mayan languages, may be more indicative of the adoption by the Mayan and Mixe-Zoquean speakers of loan words from some other linguistic group. This would explain Swadesh's evidence for the separation of the Huastecas from the Maya around 1200 BC, and evidence of Lee (1989) suggesting an invasion of the Mexican area that caused the break up of Mixe, Zoque and Popoluca unity.

The Lee (1989) hypothesis may not be too far off the mark. Mixe oral traditions maintain that much of their culture came from outsiders who entered their land long ago. This Mixe traditions leads to two possible hypothesis 1) the Mixe speakers may have obtained many aspects of their culture from a culturally superior non Mixe Zoquean group; and 2) that the Mixe-Zoquean speakers are not the archaeological Olmec People (Winters, 2005). If the Mixe-Zoquean people are not the archaeological Olmec people as assumed by Campbell (1977), who were the Olmec speakers.

Winters (1979, 1980, 1997) maintains that the Olmec people spoke a Mande language. This hypothesis is supported by the evidence of Malinke-Bambara (one of the Mande languages) loan words in a number of Mexican languages (Wiener, 1921), and the discovery of the Tuxtla statuette (Fig. 5) (Wiener, 1921) and LaVenta Offering No. 4 (Winters, 1979, 1980, 1997) that were inscribed with symbols common to the Vai writing system used by the ancient Mande speaking people (Delafosse, 1899; Winters, 1983).

The Olmec people originated in Africa. The Olmec called themselves Xi (Shi) (Winters, 2005). They spoke a language similar to the Malinke-Bambara language of the Mande Family of languages spoken in West Africa. There is clear linguistic evidence that the language of the Xi or Olmec people of Mexico, is a substratum in the major languages spoken by Indians presently living in the former centers of Olmec civilization.

Tate (1995) wrote "Olmec culture as far as we know seems to have no antecedents; no material models remain for its monumental constructions and sculptures and the ritual acts captured in small objects". Clark and Pye (2000), makes it clear after a discussion of the pre-Olmec civilizations of the Mokaya tradition, that these cultures contributed nothing to the rise of the Olmec culture. Clark and Pye (2000) wrote "The Mokaya appear to have gradually come under Olmec influence during Chertlax times and to have adopted Olmec ways. We use

the term olmecization to describe the processes whereby independent groups tried to become Olmecs, or to become like the Olmecs". Clark and Pye (2000) make it clear that it was around 1200 BC that Olmec civilization rose in Mesoamerica. She continues "Much of the current debate about the Olmecs concerns the traditional mother culture view. For us this is still a primary issue. Our data from the Pacific coast show that the mother culture idea is still viable in terms of cultural practices. The early Olmecs created the first civilization in Mesoamerica; they had no peers, only contemporaries". This rules out an "indigenous revolution" for the origin of the Olmec civilization-the archaeological evidence, suggest that the founders of the Olmec civilization were not "indigenous" people.

The evidence presented by the authors mentioned above make it clear that the Olmec introduced a unique culture to Mesoamerica that was adopted by the Mesoamericans. As these statements make it clear there was no continuity between pre-Olmec cultures and the Olmec culture.

The Proto-Olmec or Manding people formerly lived in North Africa in the Saharan Highlands: and Fezzan (Winters, 1986). Here the ancestors of the Olmecs left their oldest inscription written in the Manding script (which some people call Libyco Berber) (Hau, 1973). These inscriptions are found throughout the Sahara along caravan routes and near former Mande habitation sites like Dar Tichitt. This indicates that the Manding hand writing 2000 years before they settled the Gulf of Mexico.

These Proto-Olmec people lived in the Highlands of the Sahara. Here we find numerous depictions of boats engraved in the rock formations that these people used to navigate the Sahara before it became a desert. The Proto-Olmec probably used these boats to sail to Africa.

In the Saharan highlands the Proto-Olmec were already writing inscriptions in their own language and making jade tools and ornaments. The Olmec, were the first Americans to develop a number and math system, influenced their Mayan neighbors. The Olmec are recognized as the "madre cultura" Mother Culture of Mexican civilizations. The Mayans borrowed much of their art and architecture from the Olmecs, including the calendar and pyramid structures that the Mayans are so famous for. The first of these great Mayan structures appeared between 400 B.C. and 150 A.D.

Although Wiener (1922) and Sertima (1976) believe that the Manding only influenced the medieval Mexican empire, the decipherment of the Olmec scripts and a comparative analysis of the Olmec and Manding civilizations show correspondence (Winters, 1979, 1980,

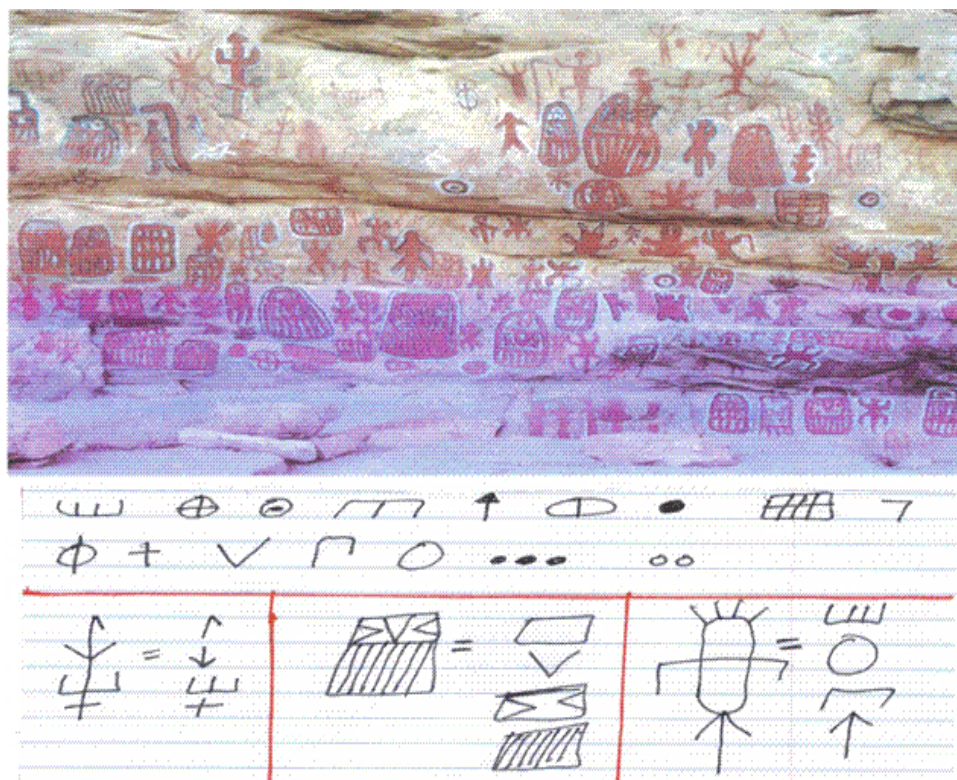


Fig. 1: Comparison of olmec signs and mande graffiti

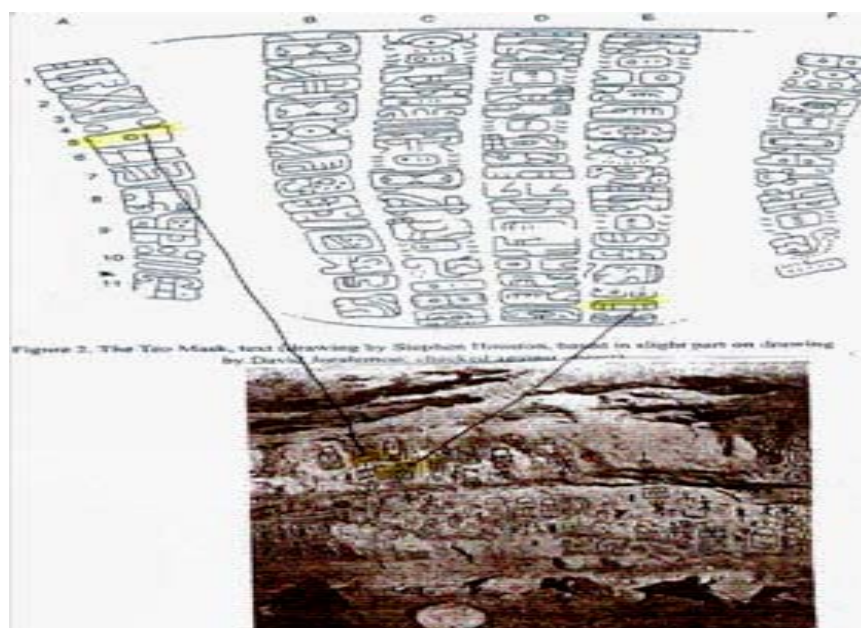


Fig. 2: Comparison of signs on the teo mask and mande graffiti

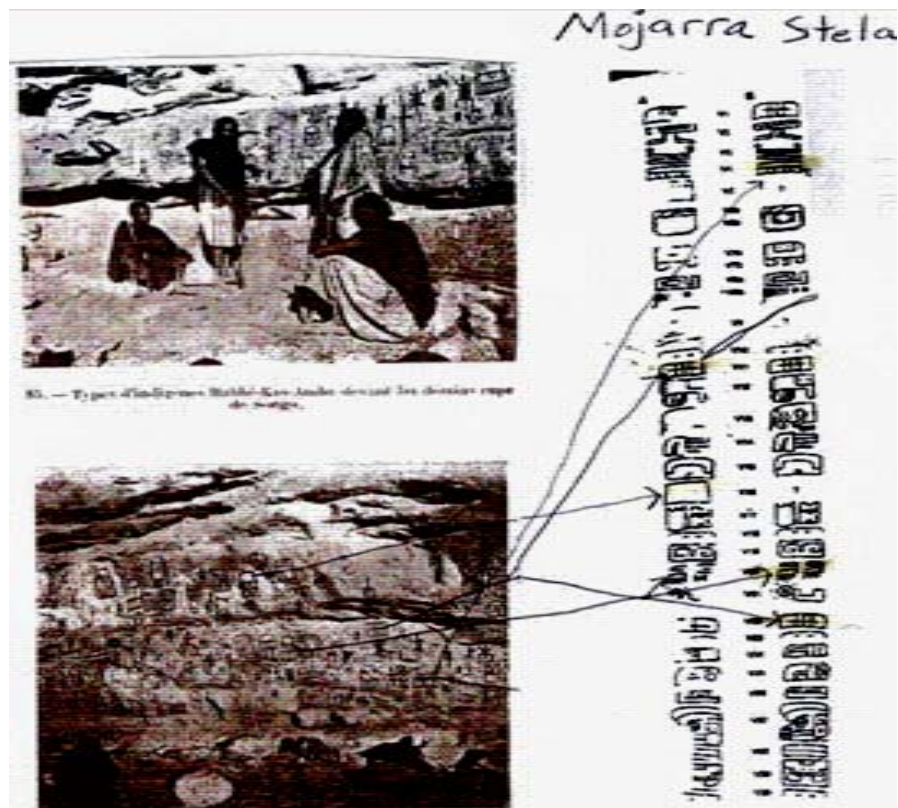


Fig. 3: Comparison of mojarra signs and mande graffiti

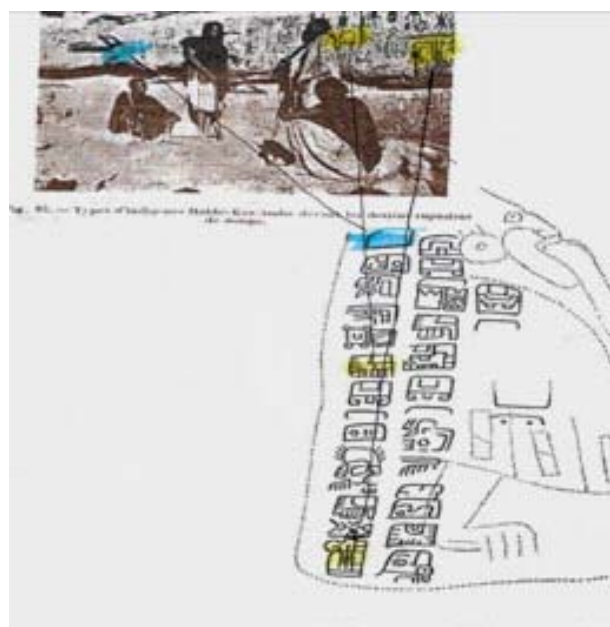


Fig. 4: Comparison of tuxtla signs and mande graffiti



1981). The most important finding of Wiener (1922) was the identification of Manding inscriptions on the Tuxtla statuette (Fig. 5).

Although Wiener (1922) was unaware of the great age of the Tuxtla statuette his correct identification of the Aftican origin of the signs on the statuette helped us to decipher the Olmec script and lead to the determination that the Olmec spoke a Manding language (Winters, 1997). The linguistic evidence suggest that around 1200 B.C., when the Olmec arrived in the Gulf, region of Mexico a non-Maya speaking group wedged itself between the Huastecs and Maya (Swadesh, 1953).

The Manding speakers were early associated with navigation/sailing along the many ancient Rivers that dotted Middle Africa in neolithic times (McCall, 1971; McIntosh and McIntosh, 1981; Winters, 2005). These people founded civilization in the Dar Tichitt valley between 1800-300 B.C., and other sites near the Niger River which emptied into the Atlantic Ocean. (Winters, 1986). The Mande signs left on Saharan sites are identical to the symbols used by the Olmec to write their documents. Fig. 1-4 provide a comparison of signs from various Olmec documents compared to Mande graffiti found in areas occupied by Mande speakers.

### THE OLMEC LANGUAGE

The Olmec language is a member the Mande family of languages. The Mande languages are spoken in West Africa. Mann and Dalby (1987) give Mande peripheral status in the Niger-Congo superset. Olmec is closest to Malinke-Bambara. The Olmec language has a high frequency of disyllabic roots of the CVCV, CV and CVV kind. Monosyllabic roots of the CV kind often reflect the proto-form for many Olmec words (Winters, 1979, 1997).

The Olmec writing is read from right to left. The syllabic script was employed in the Olmec writing found on the masks, celts, statuettes and portable artifacts in general. The hieroglyphic script is usually employed on bas-reliefs, stelas (i.e., Mojarra, and tomb wall writing. The only exception to this rule for Olmec writing was the Tuxtla statuette.

Olmec was an agglutinative language. Olmec had mixed syntactic constituents because of its use of affixes. The basic word order for Olmec was subject (S), object (O), and vowel (V) in simple declarative sentences. Due to the use of several prefixes in Olmec there are some VO sentences in the corpus of Olmec inscriptions.



Fig. 5: Tuxtla statuette

The Olmec script has 13 consonants:

k	
g	
d	-d-
t	
n	
b	-b-
f	
p	
m	
y	-y-
l	
w	
s	

In the Olmec script the consonants k, m, and n, was often placed in front of selected Olmec words, e.g., be: mbe, ngbe; and pe: Kpe. In these instances the nasal consonant can be dropped, and the monosyllabic word following the initial consonant element can be read , e.g., Kpe= pe ' spacious, pin down, flat lands, etc. Thusly, the appearance of CCV or CCCV Olmec forms are the result of the addition of initial consonantal elements to monosyllabic Olmec terms.

In the Olmec language, words formed through compounding CVCV and CV roots, e.g., (gyi, ji 'water')

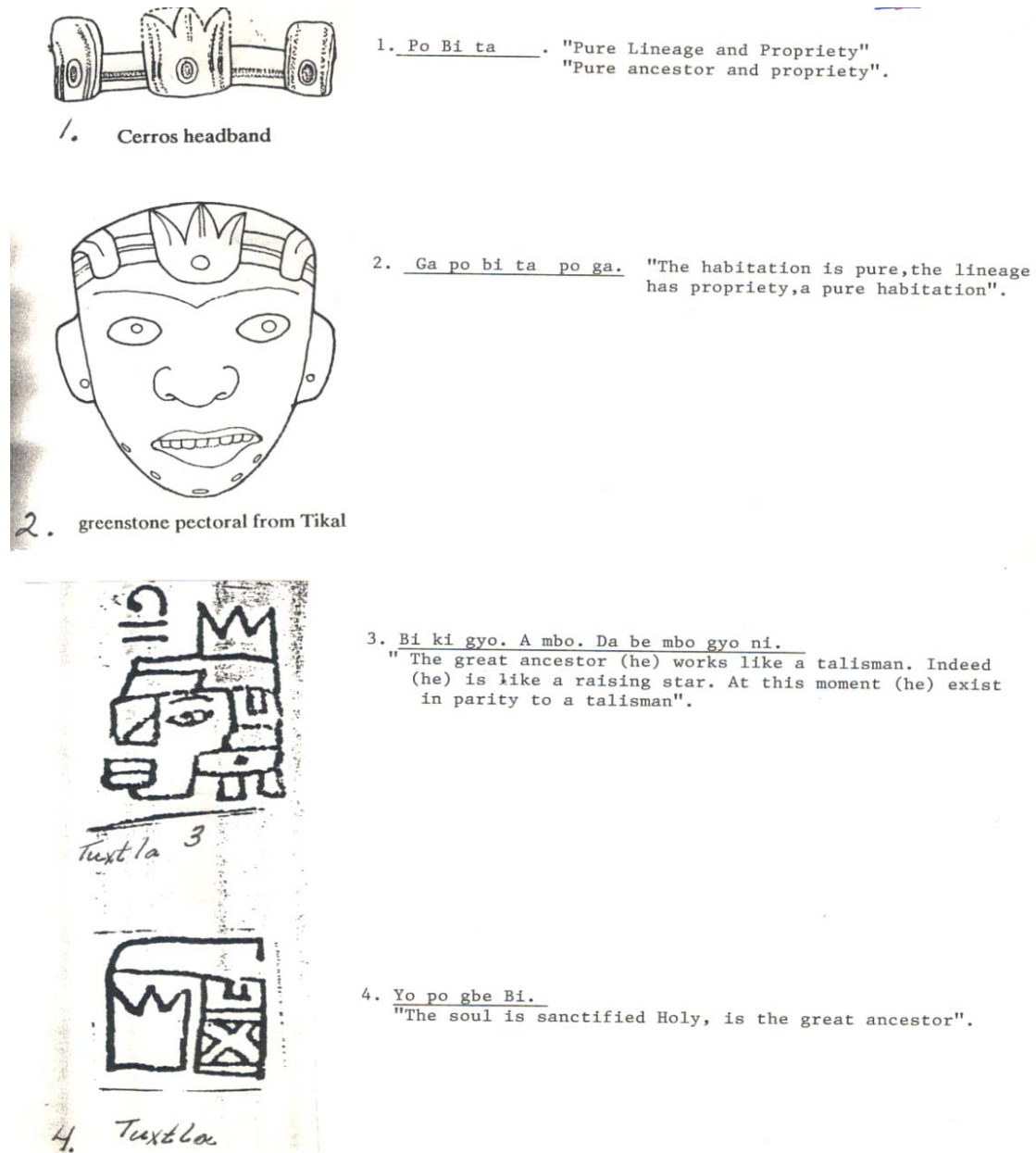


Fig. 6: The Bi sign indicating royalty found on many Olmec artifacts

da-ji 'mouth-water, saliva', ny -ji 'eye-water:tear'. Olmec (Mande) has a well established affixial system, typified by the use of suffixes as useful morphemes expressing grammatical categories. Although tone is important in the Mande languages, it was least important in the Olmec group.

## OLMEC HIEROGLYPHIC WRITING

Now we will discuss the various forms of the Olmec language as documented in their text beginning with the Olmec Hieroglyphic writing systems. There are two forms of Olmec hieroglyphic writing: the pure hieroglyphics (or

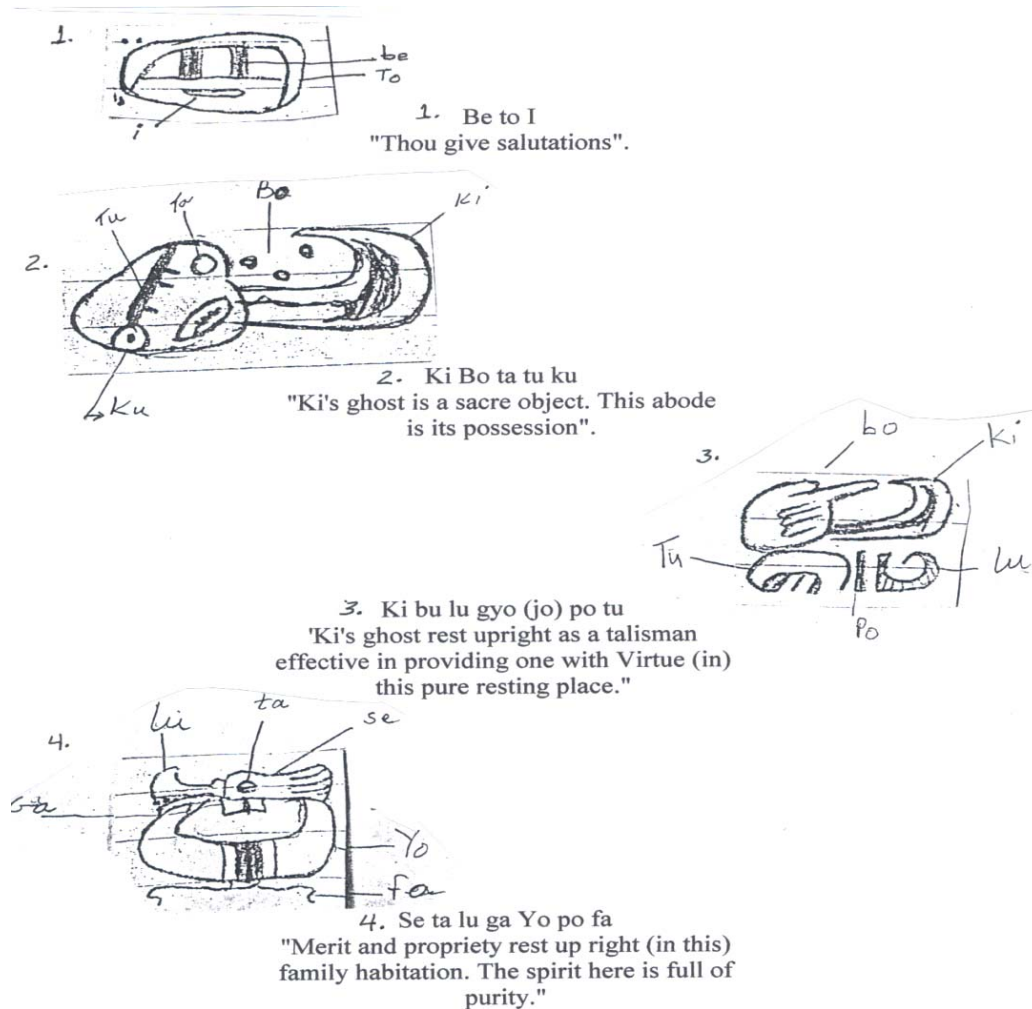


Fig. 7: Breakdown of olmec syllabic signs in Olmec hieroglyphics

picture signs); and the phonetic hieroglyphics. The phonetic hieroglyphics are a combination of syllabic and logographic signs. Below is an Olmec sign from the Tuxtla statuette (Fig. 5):



pe extensive, pit hole in ground



gyo(> jo) effective talisman, wonder making power



a this, it



kye man



ba great

**Translation of this glyph:** "Extensive (and) effective wonder making power. This man is great". To read hieroglyphic Olmec you have to break down the hieroglyphic symbols into their phonetic elements. This means that the hieroglyphs are made up of Olmec phonetic signs.

In Fig. 6 and 7, you can see how the Olmec hieroglyphic signs when broken down into their constituent parts represent Olmec syllabic symbols. In Fig. 6 we can see the Olmec sign for royalty. In Fig. 7, we see how the Olmec hieroglyphs can be separated into syllables. Most of the common hieroglyphic Olmec signs are found on the Tuxtla statuette and the Mojarra Stela. Below are some of the most frequent hieroglyphic signs from these monuments.

- Su Po ku i-nu , “Offer pure cleansing libations in thou habitation”.



- Po ka, “Your pure family mansion”.



- a ta. ni ngba i, “It is here. This it the home of your soul”.



- Pe to ta, “The abode of refuge (it) is thrust in the ground here”.



- Pè gyo . A kyè ba, “He was (indeed) an important personage (with) considerable and effective wonder making powers.



- Po tu fa gyo, “This Holy Ruler possesses the spirit of the divinity”.



- Fa po, “(He) is in possession of much purity”.



- Po tu, “The pure habitation” or “(He) is the same as purity” or Po tu yo, “ The pure refuge of the soul”.



- Yu po gbe bi, “Henceforth, the big hemisphere tomb is pure righteousness” or “The soul is sanctified and henceforth holy”.



- Po bolo ni, “The pure vestibule of Propriety”.



- So gap o tu ni, “Give libations at this pure hearth, a refuge of propriety”.

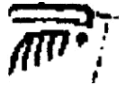


- Po bè kpa lu. Tu ta yo, “ Lay low the celebrity with approval. This is a place of refuge for the soul”.

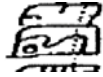




- I kyu, “Thou suddenness”.



- Ni lu nga ta, “Much propriety glows here”.



- Na Tutu, “To touch from a distance Tutu”.



- Ku a ti ku to, “He is at the commencement of (re)birth”.



- Tu to ta se, “The large hemisphere tomb is a place of rest to be realized here”.



- I la gyo, “Thou (art) firmly situated with the divinity”.



- Te te “The very honest”.



- Po Tutu, “The Holy Tutu”.



- Yu i ta, “The big hemisphere tomb is thine”.



- Tutu, name of personage referred to on the Tuxtla statuette.



- “The abode of pure refuge”



- Po gbe, “Pure Righteousness”



- Da bu po i ki, “At this moment (you are) in a state of retreat-purity-thou (art) an envoy on a mission”.



- Bi ki gyo. A mbo. Da bè mbo gyo ni, “The great ancestor (he) works like a talisman. Indeed (he is) like a raising star. At this moment (he) exist in parity to a talisman”.



- Yu yu. Po mi ta. Yu yu, “Offer pure libations (at) this large hemisphere tomb”.



- Tu ni. Tu ni, “Cause (here) the conferring of all his virtue to this very good abode”.



- Yo pe, “His vital spirit”.



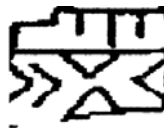
- Fe ki po mbo Po so, “The proximity to the pure law is coming out of this pure abode”.



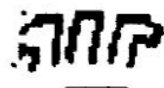
- Ta ku. Tyu a ki bu, “This place is tops”, or “This tomb, it gives messages/law/order”.



- Tu po gbe ni, “This place of rest is pure righteousness”.



- su, “offer up libations....”



- Po mi ta, “This pure place of imbibition”.



- Po tu ni, “Place of pure propriety”.



- Po nub a-na a pè mbo na bè kye ba nu ni, “His pure soul brings strength. He has assumed the equivalence (to be s divinity). The summit of purity has refuge here. (Here) very much propriety”.



- A po mbo kyu Yu yu, “This tomb is as pure as the celebrity inside the tomb”.



- Po bè ta, “Exist in a pure unique state”, 1) “Lay low the pure celebrity alone”, 2) “Lay low the pure celebrity to sleep”, 3) “Lay low the pure celebrity in a good situation”.



- “To realize no vice (at) this habitation”.



- A ku po bu mbo gyū, “He is a Governor of gigantic purity, the source of spiritual tranquility” or “He is a pure stem. [He] give(s) a blow to crush evil”.



- A Ku ni. Pe gyo po ni, “A vast talisman to confer the fruit of conception”, 2) “He is the summit of the manifestation of life”, 3) A vast talisman is [his] Ni, he is the summit of the pure Ni.



- Bè ta mè, “Exist in a unique state of spiritual tranquility”.



- Ki ku lu, “[He will] touch from a distance the Order, to hold it upright”.



- Tu ni nit u, “Cause (here) the conferring of all his virtue to this very abode”.



- Be fo i, “Thou gives salutations (here) [to the celebrity laid low]”.



The phonetic hieroglyphic Olmec signs do not stand for one word, these signs are Olmec compound symbols organized to make a picture. There are two types of Olmec compound-signs: subordinate and synthetic.

In the subordinate compound signs we see the combining of two or more Olmec base signs or roots representing a noun and a verb. Examples of this compound type are found in the El Sitio celt (Fig. 8) and

the Tuxtla statuette (Fig. 5). Below we find examples of the subordinate Olmec compound signs:

Pè to ta: “The abode of refuge (it) is thrust in the ground”.



Pè gyo. A kyè ba: “Extensive (and) effective wonder working power. This man (is) great”.



A ku po bu mbo gyū: “It is a pure stem; give a blow to crush evil”.



The characters written on the incised jadeite celt from El Sitio, Mexico were written in the hieroglyphic script (Fig. 8). This hieroglyphic writing represents compound syllabic Olmec characters in an ornate style, which probably evolved into the Mayan and Izoapan hieroglyphic scripts. This ornate style of writing usually has two or more syllabic signs joined together as illustrated in Fig. 8.

#### **Transliteration of El sitio inscriptions:**

Po	ta	tu	bè	ta
Purity	here	take	Bè	sacred object/ solitary

tu	to	ta	tu	i
Ruler	sequestered	here	place of	thou/you

fè	bè	gbè	po
in the	unite	the pure	purity

po	gba	ta	pè	ta
purity	plant	propriety	to spread	this place

se	ta	a	ta
to possess	sacred	he	this place

ma	tu
ancestor/lord	rest

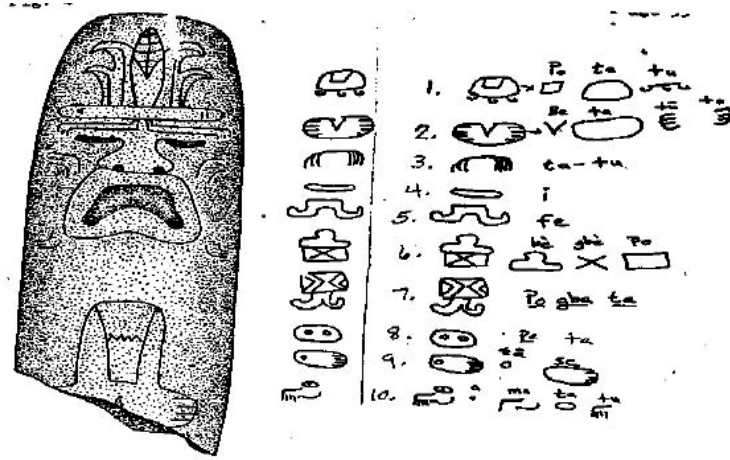


Fig. 8: El Sitio celt

**Translation:**

"Purity, take refuge here. Bè is here. The Ruler is sequestered (he who was righteous). Here is (his) place of rest. You are in the company (of the Deity). Unite with the purest of the Pure. Plant purity and propriety to spread over this place (and) to possess for posterity. He (is) a sacred object. This place the Lord rest".

**Vocabulary:**

po : purity  
ta : here, this place; place of rest, rest; Partisan, supporter; propriety; to be sacred, sacred object, mystic order;  
tu : Ruler, King; take refuge  
bè : name; to be, exist; unite  
to : sequestered  
I : pronominal article, 2nd person, you, thou, thine  
fè : in the company  
gbè : pure, virtuous, righteous  
po : purity, pure, the good  
gba : to plant  
pè : spacious, pin down; spread over  
se : v. to lead; to be in possession for posterity  
a : pronominal article, 3rd person, he, she, it  
ma : Lord, ancestor

The synthetic Olmec compound signs represent a compound expression. These signs reflect a complete sentence. In the synthetic compound we have VO type sentence as opposed to the SOV type sentence associated with Olmec subordinate compound signs. Below are several examples:

- Bè ta mè: "Exist in a unique state of comprehension"



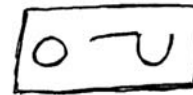
- Bè ta gyu: "Exist in a unique state of spiritual tranquility"



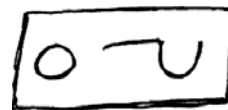
- ki ku lu: "Send away the personal character" or "Send away the personality to the family habitation"



- Po be ta:



Purity exist here. or Be ta:



- (1) Lay low the celebrity alone
- (2) " " " " in a good situation
- (3) " " " " " " " " to sleep
- (4) " " " " a sacred object

Olmec hieroglyphic signs also appear on the jaguar stucco pyramids and inside the Preclassic tombs discovered under them. The Olmec hieroglyphic signs are seen in the panels of the first temple of Cerros, Structure 5C.

There are two panels at the Cerros pyramid the Eveningstar panel and the Morningstar panel. On the top of the head of the Evening-star jaguar and the morning star jaguar stucco mask at Cerros we have the Olmec sign of lineage bi (Fig. 6). In Olmec bi, means 'today, present, moment, lineage'. But the symbols on either side of the Eveningstar and morning star panel are different.

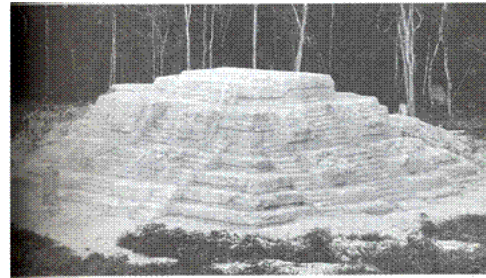
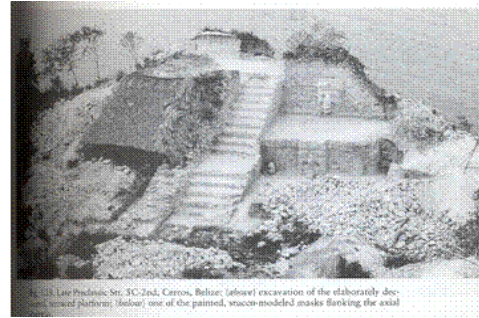
In Fig. 9a we see that some of the earliest Mayan pyramids, like the ones at Cerros and Tikal are built over earlier pyramids which may have been built by the Olmec. One of the most interesting artifacts from the Tikal pyramid is the greenstone pectoral (Fig. 9b)

The headband glyph on the Greenstone Pectoral mask (Fig. 6) from Tikal, and in the Tuxtla statuette inscriptions (Fig. 3 and) are very interesting. The headband glyph includes three Olmec signs Bi, Ta, Po. As a result from right to left we read the following signs on the headband of this dignitary from Tikal: Po Bi ta. Po ta, or Pure lineage and Propriety. Pure Propriety.

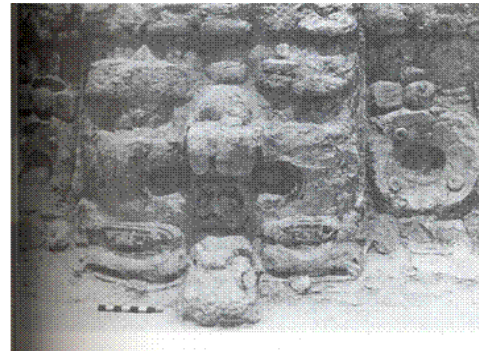
The decipherment of the Olmec writing indicates that the common people visited the Cerros pyramid and other burial sites to offer libations, and obtain blessings from the personages buried therein. To denote the divine status of many temples the Preclassic Maya-Olmec folk left inscriptions with the Su ba Su glyph. in the following figure, we have five examples of the Su ba Su or Tu Su ba Su sign from 1) Tuxtla statuette, 2) Cerros, 3) Rio Azul and 4) Tikal.

The translation of these signs are below:

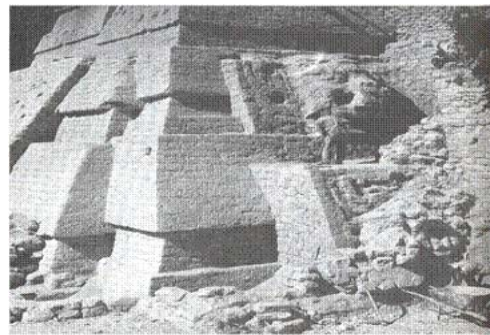
- 1 Su su, "Offer up Many libations".
- 2 Su ba Su, "Offer libations to this unique Ba.(Greenstone Pectoral Mask Headdress glyph)  
Fig. 9b: Ga po bi ta po ga, "The habitation is pure, the great ancestor/or lineage has propriety, (indeed) a pure habitation" (after this sign we see the Su ba su sign repeated.)
- 3 Pe Se su ba su, "Pe to realize in this house the offering of libations (for) his Ba, offer libations"
- 4 Se tu ni Se, "To realize this very good abode--merit be fo li, Lay low (the celebrity) cause (him to) rest (herein) indeed.



**Uaxactun, Guatemala**



**Cerros, Belize**



**Tikal, Guatemala**

Fig. 9a: Pre-classic pyramids





Fig. 9b: The greenstone pectoral mask

Su ba su, Give libations (for) the Ba, offer the libations.

- 5 Yo ke le nde. Pa fe yo. Su ba ke le su. The vital spirit is unique indeed. Very much admiration the desire of this spirit. Give libations (for) this unique Ba! Give libations.

Other Olmec signs at Cerros include:

Tu fa ta su sign.

This sign is made up of

tu  
fa  
ta  
su

It means in Olmec "This abode possessed by the Partisan (of the Mystic order) offer libations". This sign is related to other Olmec symbolism from sites in Mayaland including Kaminaljuyu and Izapa. The signs from these sites is formed by three signs.

The sign is formed by the following signs:

tu  
fa  
be

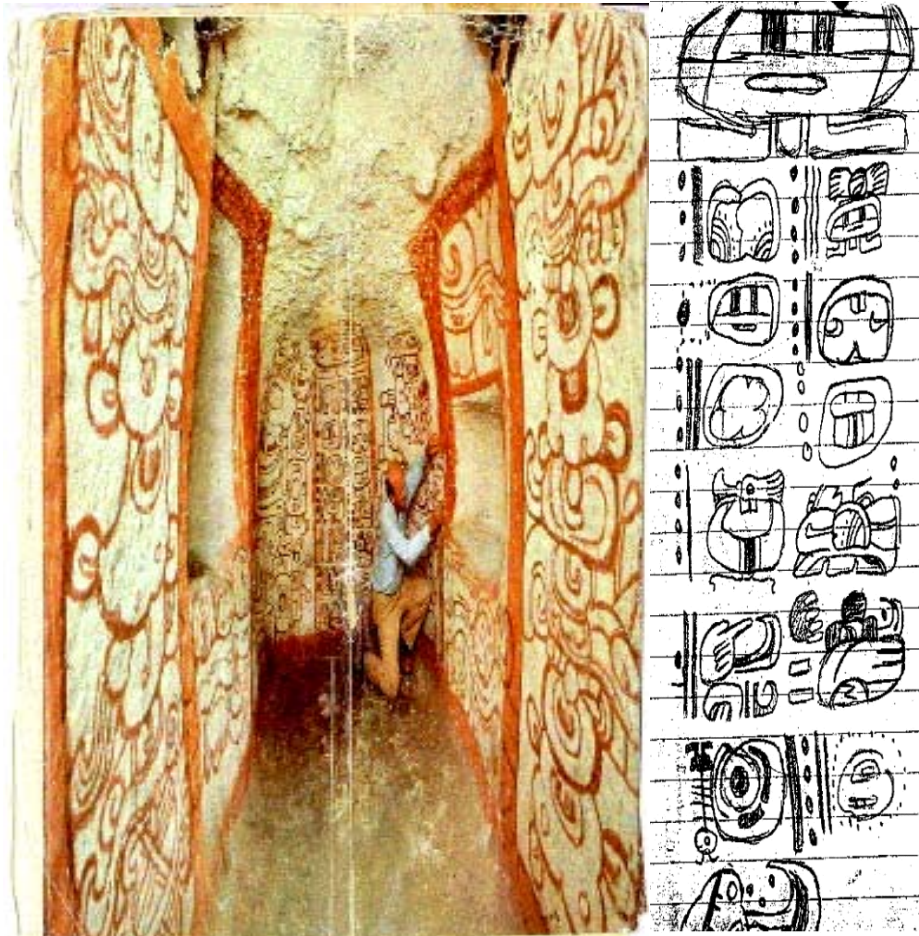


Fig 10: Rio Azul inscriptions

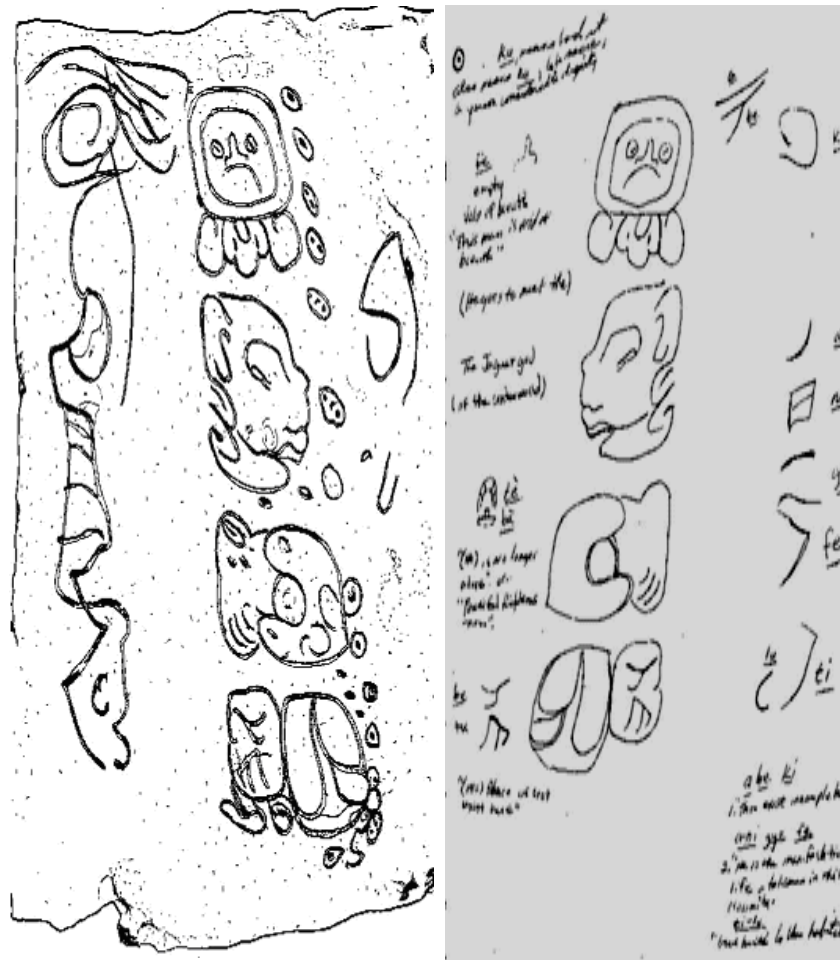


Fig. 11: Bilingual mayan olmec inscription



Fig. 12: The LaVenta celts

It means "This abode the possession of a celebrity laid low (here).

An understanding of the Olmec writing allows us to read the obituary in chamber burial 48 of Tikal, Structure 5D-33-2nd; and the Rio Azul inscription (Fig. 7 and 10). In Fig. 7, we see Olmec hieroglyphs as they appear in a tomb instead of a statuette or Stela.

An examination of the Rio Azul inscriptions will show that the glyphs on lines 1,2,3, and 8(a) agree with similar signs on the Tikal inscriptions.

In Fig. 11, we illustrate how you can read Mayan inscriptions using the phonetic approach, based on interpreting the sound value of the Olmec sign, but read in the Yucatec language.

The sign ah po or ahau, is a good example of the use of Olmec symbols to write Mayan words. This sign is made up of three Olmec signs Tu tu and po. In Olmec these signs mean Tu tu "the ruler that rules" and Po 'pure', i.e., 'Pure ruler that rules'.

### OLMEC SYLLABIC WRITING

There are two forms of Olmec syllabic writing plain and cursive. The famous inscribed celts of Offering no.4 LaVenta, indicate both the plain (Fig. 12) and cursive syllabic Olmec scripts (Fig. 13). In the cursive form of the writing the individual syllabic signs are joined to one another, in the plain Olmec writing the signs stand alone. The cursive Olmec script probably evolved into Olmec hieroglyphics.

The inscriptions engraved on celts and batons are more rounded than the script used on masks, statuettes and bas-reliefs. The pottery writing on the Los Bocas and Tlatilco ware are also in a fine rounded style. The inscribed celts found at La Venta in 1955, at offering No.4, the inscribed jadeite celt from near El Sitio, and the Black Stone Serpent Scepter of Cardenas, Tabasco and Mojarra Stela as examples of the Olmec writing. All the translations of Olmec artifacts are based on the Manding dictionary of Delafosse (1955).

The celts of La Venta offering no. 4, were discovered by Drucker in 1955. These celts show both the plain and cursive forms of the Olmec script. These inscribed celts were part of a collection of 16 figurines and jade and serpentine found in offering no.4 (Fig. 12) (Soustelle, 1985).

In La Venta Offering no.4, fifteen figurines were arranged around a central figure (Fig. 12). According to the inscriptions on the celts in this collection, the personage buried in this tomb was Pè. The bold head of Pè suggest that he was their cult leader.

A pit had been dug over the incised celts and figurines, a hole leading from the earth's surface down to the burial cache suggest that this was used for pouring libations on the figurines. This view is supported by the fact that the inscriptions written in the plain Olmec syllabic style (Fig. 12), mentions the fact that Pè tomb was to act as a talisman or protective shrine for the faithful. The six celts found in La Venta offering no.4, were arranged in a semi-circle. Four of the celts were engraved. The first and last celts in the semi-circle were not engraved.

Moving from left to right two engraved jade celts when joined together depict an Olmec priest wearing an elaborate headdress and holding what appears to be a torch or baton in his hand. This figure probably represented Pè. It is analogous to the figure engraved on a jade Breastplate (no. 13:583), now located in the National Museum of Anthropology at Mexico City (Warkentin and Scott, 1980).

The first two celts probably were originally joined together and served as a symbol of authority for the deceased priest while he was alive. The breakage of this celt into two parts probably symbolized the withdrawal of the priest's physical body, from the physical plane to the spiritual plane. The placement in the tomb of Pè's "celt of power" was meant to hold his spiritual power at the grave site.

The third engraved celt at La Venta offering no. 4, was engraved in the cursive Olmec script (Fig. 13). In the text of the cursive script we find Pè's obituary.

#### **Transliteration of Symbols on Fig. 13:**

Fè	fè	mi	pè	po	gbè
without	void	consumed	Pè	pure/holy	below (in)
<b>breath</b>					
lu		bè		ma	
the family		lay low the		(the) Lord	(in)
<b>habitation</b>		<b>celebrity</b>			
yu		ka-pè	ba		ko
the big hemisphere		Ka-Pè	the Great		(in) the
<b>tomb</b>				<b>back of</b>	
se		yu		we	
(to) possess for		the big hemisphere tomb		Hence	
<b>posterity</b>					
ta	lu		ba		i
this place	the family		great/strong		thine
<b>habitation</b>					
gba	kyè		be	po	
fixed in	inheritance/estate		here	pure/holy	
<b>the ground</b>					
mbe			be		
lay low the celebrity			lay low the celebrity		

The Olmec characters on one of these celts may be transliterated, reading from top to bottom, thus: Fe. Fe. Mi Pe po gbe lu be ma yu. Ka-Pe ho to se yu. We ta lu-be i gba kye. Be po mbe be. The translation of the text into English is as follows:

Without Breath. Void, Consumed (lies) the Holy Fe, below the family habitation. In the big hemisphere tomb the great one lies low. The great Ka-Pe, in the back of the big hemisphere tomb, possesses (this place) for posterity. Hence this is the great family hearth. Thine inheritance (is) fixed in this ground (where) the great one lies low.

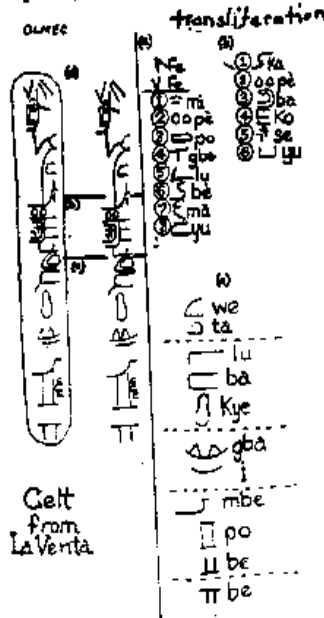


Fig. 13: Cursive Olmec

#### Translation:

"Without breath. Void. Consumed (lies) the Holy Pè, below the family habitation. Lay low the celebrity, the Lord, in the hemisphere tomb. The Great Ka-Pè, in the back of the big hemisphere tomb, possesses (this place) for posterity. Thine inheritance (is) fixed in this ground. Here the pure celebrity lays low. Lay low the celebrity".

#### Vocabulary:

- fè : v. to be void, empty, without breath  
 mi : v. consumed  
 Pè : proper name; v. spacious, pin down  
 po : adj. : superlative of white translated as holy, pure, the good  
 gbe : v. lay low, below; virtue  
 lu : family habitation  
 be : v. lay low the celebrity  
 ma : it can be translated as "Great one" or "Lord"; it can also be a suffix joined to a substantive or a verb to show intensity

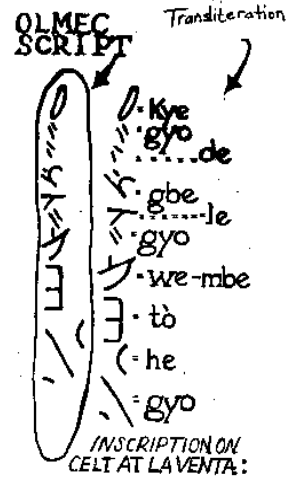


Fig. 14: Plain olmec syllabic signs

- yu : the big hemisphere tomb  
 Ka : a title given to Olmec elites  
 ba : adj.: great  
 ka : adv.: in the back of  
 se : possess (this place) for posterity  
 we : adv.: hence  
 ta : this place, place, here  
 lu : n.: the family habitation  
 ba : adj.: great  
 i : pronominal particle of the second person: thine, thou, you  
 gba : transitive v.: fixed in the ground  
 kye : inheritance, estate  
 be : here

It is interesting to note that on this celt, after the use of the Olmec term po, a /g/ or /m/ is prefixed to bè, to make this word into a CCV term. Another interesting fact about this inscription is that reduplication is used at the end, and beginning of this inscription to denote emphasis. The fourth engraved celt from left to right in La Venta offering no. 4, is written in the plain Olmec script (Fig. 14). This inscription declares that the tomb of Pè is a talisman of great power.

#### Transliteration of Fig. 14:

Kyè	gyo	dè	gbè	
A man	the leader of the cult	indeed	virtue	
le	gyo	we	mbè	to
to be	consecration	hence	here	place of rest
he		gyo		
good		talisman		

**Translation:**

"The man (was) the leader of the cult. Indeed (a man of) virtue to be an object of consecration. Hence here a place of rest (a) good talisman (protective shrine for the faithful)".

**Vocabulary:**

kyè	: Man
gyo	: one faithful to the cult/deity, object of consecration, leader of the cult association; talisman, amulet
dè	: suffix of determination or definite article; indeed
gbè	: virtue, righteousness, etc.
le	: verbal postposition: to be
we	: adv.: therefore, hence
mbè	: here
to	: place of rest
he	: adj.: good

Navarrete (1974) has published two interesting engraved pieces. They are scepters, the Black Stone Serpent Scepter and, an incised jadeite celt from El Sitio (Fig. 8). The Black stone scepter from Cardenas, Tobasco has only two characters to/tu and bè. These characters indicate that this was indeed a scepter and symbolized the sovereign's high office and power. The signs tu bè can be interpreted as "Royalty rest here" or "Scrupulous observer of the Law".

I have also deciphered the Syllabic signs on the Short Side of the Mojarra Stela (Justeson and Kaufman, 1997). The inscriptions on the Mojarra Stela are also written in the plain Olmec syllabic style of writing

The new Mojarra inscriptions come from a badly weathered and eroded hieroglyphic column. They were found in November 1995 on the side of Stela 1 from La Mojarra a riverine site in southern Veracruz (Justeson and Kaufman, 1997).

The newly discovered short Mojarra text was published in July 1997. The new side text provides interesting information about the Olmec people and their language. This column of Epi-Olmec or plain Olmec style text was published by Justeson and Kaufman (1997). In the article by Justeson and Kaufman (1997), claim that decipherment of this text proves their decipherment of epi-Olmec using Mixe-Zoquean. This claim is false. This text was written in the Olmec language, which is a variety of the Mande group of languages.

The Mojarra inscriptions are compound Olmec signs. Compound Olmec signs are signs which are made up of more than one syllabic signs.

We read the signs in this text from top to bottom, outside inside. For example, the first Olmec sign reading the Mojarra short side text from top to bottom is made up of three signs (Fig. 14). The box figure means Po, the three vertical lines inside the box equal tò or se, and the line separating the three vertical lines is the Olmec pronoun i. Thus this sign can be read either as Po i tò "Thou Righteous King "; or " Po i se " You have realized purity.

I have translated the inscriptions on the Shortside of the Mojarra stela (Fig. 15). I have translated the word kyu 'hemisphere drum' as hemispheric tomb. I have translated kyu/tyu as hemisphere tomb, because although this term means hemisphere drum today I believe that in Proto-Manding times this term was used to describe the hemispheric tombs built to entomb Olmec kings. This view is supported by the fact that in many Olmec inscriptions Olmec words for habitation are often associated with the use of kyu (lines 13 and 14 below).

Below is a transliteration of the the 30 "signs" in the Short Side or B side of the Mojarra stela.

- 1 Po i tò:  
Thou (art a) righteous King.
- 2 I po su ba su:  
Thou (art) pure. Offer libations to this unique Ba
- 3 Se gyo:  
(of) the Se gyo.
- 4 Po tu Po/ Po da tu Po:  
The pure grand refuge is smooth
- 5 ??????
- 6 Po ku tu:  
Pure cleansing this refuge  
Po gbe tu tu:  
The sanctified King and his refuge
- 7 Po ni tu fa:  
The pure principal of life is in possession of this abode
- 8 Ba su:  
The Ba is vigorous
- 9 Pe kyu:  
Prodigious tomb
- 10 ?????
- 11 Yo Pe:  
King Yo Pe
- 12 Po i tu:  
Pure (is) thine refuge
- 13 Se ni gyo tè to nde:  
[Yo Pe's] Principal of life to realize no vice  
(in this) good abode/habitation on terrain near the water



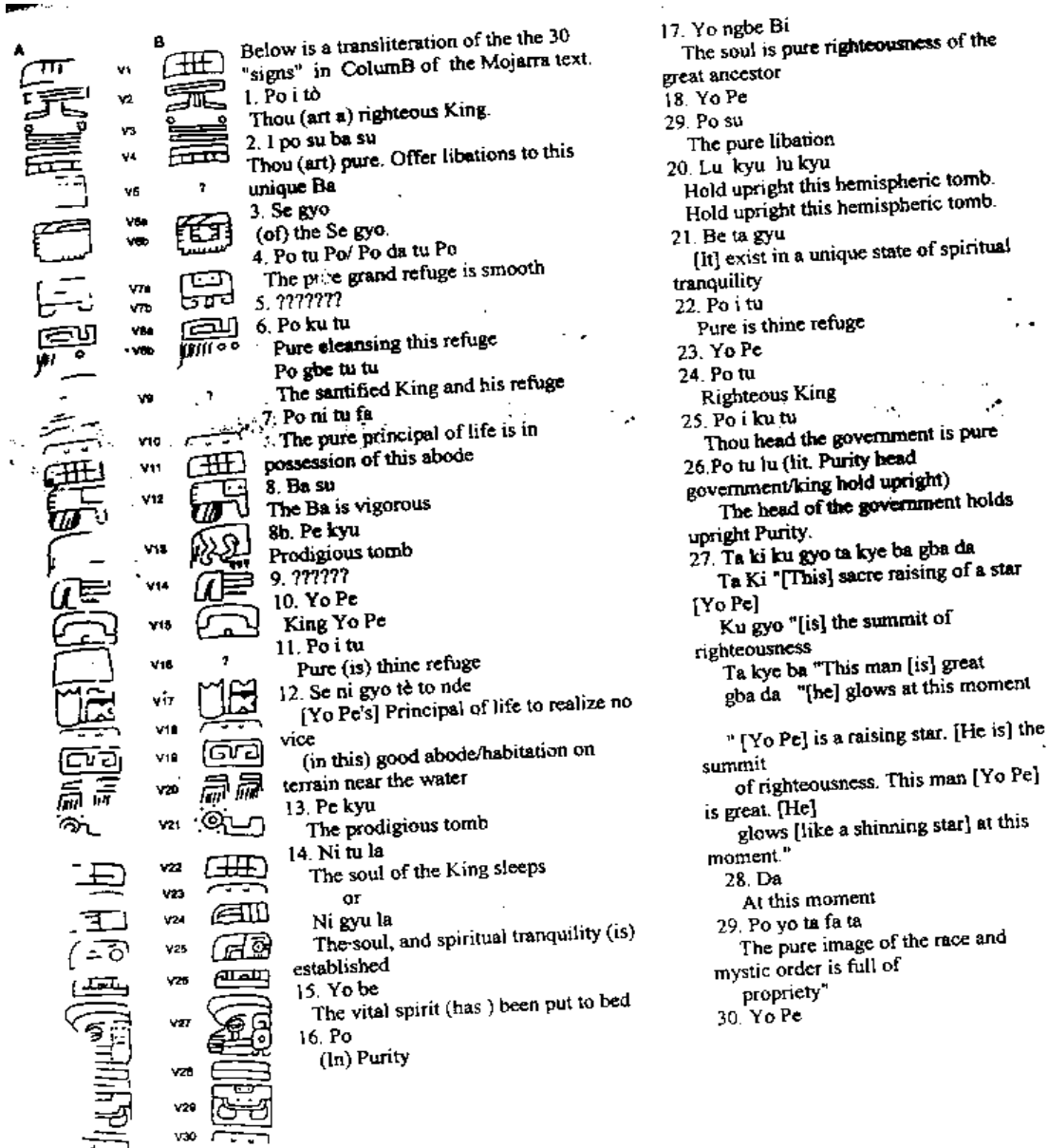


Fig. 15: Inscription on shortside of Mojarra Stela

- |  |  |
|--|--|
| 14 Pe kyu:<br>The prodigious tomb  | 17 Po:<br>(In) Purity  |
| 15 Ni tu la:<br>The soul of the King sleeps or<br>Ni gyo la:<br>The soul, and spiritual tranquility (is) established | 18 Yo ngbe Bi:<br>The soul is pure righteousness of the great ancestor |
| 16 Yo be:<br>The vital spirit (has ) been put to bed   | 19 Yo Pe   |
|  | 20 Po su:<br>The pure libation   |
|  | 21 Lu kyu lu kyu:  |

- Hold upright this hemispheric tomb.  
Hold upright this hemispheric tomb.
- 22 Be ta gyu:  
[It] exist in a unique state of spiritual tranquility
- 23 Po i tu:  
Pure is thine refuge
- 24 Yo Pe
- 25 Po tu  
Righteous King
- 26 Po i ku tu:  
Thou head the government is pure
- 27 Ta ki ku gyo ta kye ba gba da:  
Ta Ki "[This] sacre raising of a star [Yo Pe]  
Ku gyo "[is] the summit of righteousness  
Ta kye ba "This man [is] great  
gba da "[he] glows at this moment  
"[Yo Pe] is a raising star. [He is] the summit of  
righteousness. This man [Yo Pe] is great. [He] glows  
[like a shinning star] at this moment."
- 28 Da:  
At this moment
- 29 Po yo ta fa ta:  
The pure image of the race and mystic order is full of  
propriety"
- 30 Yo Pe Po yo ta fa ta Yo Pe:  
"The pure image of the race and mystic order, full of  
propriety [is] Yo Pe."

Consequently, Justeson and Kaufman's (1997) translation of this text using Mize-Zoquean fails to convey the richness of Olmec prose and the deep love and respect that the Olmec gave their kings. Ustenson and Kaufman (1997) translate the new inscriptions as follows:

"Behold, there/he was for 12 years a [title]  
And then a garment got folded  
He [uttered]  
-the stones that he set in order were thus  
symbols,?kingly ones  
What I chopped has been planted and harvested well  
(A) shape-shifter(s) appeared divinely in his body".

This decipherment by Justeson and Kaufman (1997) does not prove that the Mojarra stela is written in Zoquean. The authors translating this inscription admit they still can not read the entire document using pre-*proto-Zoquean* to interpret the alleged *Epi-Olmec* logograms. This translation constrast sharply with my decipherment of the new Mojarra text because Olmec was a Mande language-not Zoquean.

Justeson and Kaufman (1997) believe that this long inscription is about "folded garments" , and a dignitary chopping crops while a "shapeshifter" appears in "his body". My decipherment, on the otherhand, based on the authentic language of the Olmecs indicates that the Mojarra Stela was a funerary text, acknowledging the potent mystical power of the *Epi-Olmec* King Yo Pe.

In relation to the Olmec people, they had both a syllabic and hieroglyphic script. The terms in their language are monosyllabic and each term may have multiple meanings. The Olmec terms have been interpreted using the Manding lexical items recorded by Delafosse, in *La Langue Mandigue et ses dialectes*.

If this hypothesis for a Malinke-Bambara is correct there should also be evidence of Olmec (Malinke-Bambara) loans in the Mayan , Otomangue and Mixe-Zoque languages. Below we will test this hypothesis in relation to the Mayan languages spoken throughout Mexico, the Mixe languages in Qaxaca and Otomi a member of the Otomangue language.

## RESULTS

Leo Wiener in Africa and the Discovery of America, made the discovery that the characters on the Tuxtla statuette were of Malinke-Bambara origin. This was a striking discovery. This artifact, along with other engraved Olmec artifacts is credible evidence that the Olmec probably came from Africa. This led to the hypothesis that if writing was created first by African Olmec, the term used for writing will be of Olmec origin. This is supported by the Mayan terms for writing illustrated in Table 1.

The Mayan languages have adopted a number of loan words from other Meso-American languages. In this paper we will review the evidence for Olmec (Malinke Bambara/Manding) loan words in the Mayan languages.

The Mayan term for writing is derived from the Olmec/Manding term for writing \*se'be. In Table 2, we list the various terms for writing used by the Manding/Mande people for writing.

The Mayan /c/ is often pronounced like the hard Spanish /c/ and has a /s/ sound. Brown (1991) argues that \*c'ihb may be the ancient Mayan term for writing but, it can not be Proto-Mayan because writing did not exist among the Maya until 600 B.C. This was 1500 years after the break up of the Proto-Maya (Brown, 1991). This means that the Mayan term for writing was probably borrowed by the Maya from the inventors of the Mayan writing system.

Table 1: Mayan terms for writing 15

Yucatec	c'i:b'	Chorti	c'ihb'a	Mam	c'i:b'at
Lacandon	c'ib'	Chol	c'hb'an	Teco	c'i:b'a
Itza	c'ib'	Chontal	c'ib'	Ixil	c'ib'
Mopan	c'ib'	Tzeltalan	c'ib'		
Proto-Term for write *c'ib'					

Table 2: Manding term for writing

Malinke	se'be	Serere	safe
Bambara	se'be	Susu	se'be
Dioula	se'we'	Samo	e'be
Sarakole	safa	W. Malinke	safa
Proto-Term for writing *se'be, *safâ			

Table 3: Mande Loans in Quichean

Quiche		Malinke-Bambara
saq'ed	aytime, sunlight	sa 'heaven, sky'
k'i	many	kika
Ja	lineage, family	ga, gba
Ja	water	Jl
q'aq	fire	ga-ndi
palo	lake, sea	ba, b'la
k'oto	to carve, cut	ka
k'um	squash	kula, kura
Ba	father	fa
Ba	lord	Ba 'great' (Person)
ka'	land, earth	'ka 'suffix joined to names of lands, etc.
ich	eye	n'ya
Ie	the, that, this	Ie
ma	no	ma
naal	parent, mother	na
m	point, at the point	na
cah	earth, land	ka (see above)
balam	jaguar/tiger	balan 'leopard worship'
sib'	smoke	SIS''l
xolo:m	head	ku
xuku?	boat, canoe	kulu
ca<al	neck	ka
quI	neck	ka
k'u?sh	chest	kesu
k'o:x	mask	ku
pu:m	stomach	furu
pach	bark	far a
Sh-ko:ya: '	tomato	koya

Brown has suggested that the Mayan term c'ib' diffused from the Cholan and Yucatecan Maya to the other Mayan speakers. This term is probably derived from Manding \*Se'be which is analogous to \*c'ib'. This would explain the identification of the Olmec or Xi/Shi people as Manding speakers.

The Manding origin for the Mayan term for writing, leads to a corollary hypothesis. This hypothesis stated simply is that an examination of the Mayan language will probably indicate a number of Olmec-Manding loans in Mayan.

Table 4: Mande loans in Quichean with ch <k shift

Quiche		Olmec (Malinke-Bambara)
ch'ich'	bird	kono
achi	man	kye
chi>ic	bite	ki
chhix	rock	kaba

Table 5: Quiche nativization of Malinke-Bambara words with initial <s>

Quiche		Malinke-Bambara
Xab'	ram	sa
Ixa?	Seed	SI
Uxe	root	sulu, sum

We would therefore assume that if the Olmec spoke a Mande/Manding language we would find Olmec (Mande) loan words in the Mayan, and other languages spoken in Mexico. Below we will test this hypothesis in relation to Chol, Mixe, Quichean and Yucatec.

**Quichean and Malinke-Bambara:** In Table 3, we see a list of Manding loan words in the Quichean languages. These Quichean terms are from Tedlock (1996) and Campbell (1977). The manding terms for this comparison come from Delafosse (1955) and Winters (1986).

The Quiche loan words from Malinke-Bambara show the following phonological patterns:

a ----->a    c----->s  
o ----->u    c----->k  
u ----->a    z----->s  
x ----->s    k----->k  
x ----->k    p----->f  
q ----->k    ch----->k

There are some interesting morphological features associated with Malinke-Bambara loans which were nativized by the Quechean speakers. For example, we find that the Malinke-Bambara loans adopted by the Quiche with an initial <k> were nativized in the recipient language through the use of the Quiche <ch> sound as illustrated in Table 4.

It is also interesting to note that many Quiche words beginning with <x> which is pronounced 'sh', correspond to Malinke-Bambara words with an initial <s> as illustrated in Table 5.

This indicates that the Quiche nativized the phonology of some Malinke-Bambara loans through the substitution of <x> for the Malinke-Bambara <s> sound.

**Yucatecan and Malinke -Bambara:** Below we compared Yucatec and Malinke-Bambara terms. We have placed the page number where each Mayan term can be found in Maurice Swadesh, Critina Alvarez and Juan R. Bastarrachea's,

"Diccionario de Elementos del Maya Yucatec Colonial "

(Mexico: Universidad Nacional Autonoma de Mexico Centro de Estudios Mayas, 1970). The Malinke-Bambara terms come from Delafosse, Maurice (1929).

\*La Langue Mandingue et ses Dialectes (Malinke, Bambara, Dioula)\*. Vol. 1. Intro. Grammaire, Lexique Francais Mandingue)

Paris: Librarie. Orientaliste Paul Geuthner.

Phonetic correspondences exists between the Olmec /Malinke-Bambara and Yucatec. There is full agreement between k, m,n, and t. There is also assimilation of c to k, z to s.

Yucatec Olmec

z s

- Zuu, 'joined,unite su,' shape
- Zul 'to wet' su, 'precipitation
- Zou, 'to entagle' su, 'be i mixture'
- Zay, 'assemble' se, 'join'

c k

- Earth cab ka
- Serpent can kan
- Rock chhix kaba
- To cause cal ku
- Sky caan ka
- Village cah ka 'suffix joined to names of towns
- Maize co 'grain of maize' ka

k k

- Sun kin k'le
- Buckle kal koli
- To kill kim ki
- Sky kan kan
- God, sacre ku ku, ko

t t

- Man ta' tye
- Come tal ta
- To cover too tu
- Law toh tu
- Truth toh tu, 'fact, real'
- Forest te tu
- Male ton, 'male sexual organ' tye, khon
- Saliva tub tu

b b

- Went,gone bin bi
- Water bak ba
- Wter ha a
- Lord ba ba

- Arrows been bine
- Balan 'jaguar'/tiger balan 'leopard worship'

n n

- Mother na' na
- House nu nu
- House na nu
- Nose ni nu

p p

- To be pe pe
- To break pa'a pe

There are many kinship terms in the Mayan languages probably of Malinke-Bambara origin including :

- Maya English Manging
- Naal parent,mother na
- Ba father pa
- Ba lord ba

An examination of Mayan and Mande homophones also indicates striking similarity. There is a connection between Malinke- Bambara and Yucatec homonyms for 'high, sky and serpent'.

In Malinke-Bambara the word *Ka* and *Kan* means 'serpent, upon high,and sky'. In Yucatec we find that can/kan and caan/kaan means ' serpent and heaven'. The fact that both languages share the same homophonic words, point to a formerly intimate contact between the speakers of Mayan and Mande languages in ancient times.

Often we find that some borrowed Mande words beginning with /s/ , through nativization appear as /c/ in the Mayan languages. For example, word the Malinke-Bambara word *sa* means 'sell, to buy and market'. This is related to Mayan *con* 'to sell', and can 'serpent'. We also have other examples:

- Mayan Malinke-Bambara
- Can serpent sa
- Con to sell sa, san
- Caan heaven, sky sa
- Cah 'small village' so 'village, home'

The copying of Mande /s/ words into Mayan lexicons as /c/ words are probably the result of phonological interference of Mayan /c/, which influenced how Olmec words were lexicalized by biligual Yucatec speakers. Interference occurs when speakers carry features from their first language over into a second language. Thus, we have Yucatec *con* 'to sell', and Malinke-Bambara *san* 'to sell'. Many of the Mayan sites were first settled by the Olmec.

This is supported by the fact that the Mayan inscriptions from Palenque claim that the first ruler of this city was the Olmec leader *U-Kix-chaan*. In addition, some Mayan kings were styled Kuk according to Mary Miller and Karl Taube, in "The Gods and symbols of ancient Mexico and Maya", said this term was also used in the Olmec inscriptions, like those from Tuxtla, to denote the local ruler of many Olmec sites. It was probably during this period of contact that the Maya began to copy Mande terms and incorporate them in their lexicon. It is time that we stop the name calling and work together to explain to the world the African presence in ancient America.

This is interesting in relation to the Mayan languages. In the Mayan languages we see a similar contrast between Mayan <\*t> and <\*c>, <\*ch>. Below are examples from Cholan and Yucatec:

Chol		Yucatec
ti	mouth	chi
te	tree, stick	che

In Yucatec, we also have *ca* 'excrement' and *ta* 'excrement'. We also have *ti* 'eat' and *chi* 'eat'.

This comparison of Yucatec and Cholan indicate that as a result of Mayan contact with the Olmec there was a shift in the Mayan from <t> to <ch> before <i> and <e> took place in Pre-Classic times.

This shift may be due to Olmec influence. A similar sound shift took place in the Malinke-Bambara languages. In Malinke-Bambara there is a contrast between <s> and <t>. This particular shift in Yucatec and Chol may have occurred under the influence of the Malinke-Bambara speaking Olmecs. This view is supported by the fact that many of the Malinke-Bambara loans beginning with an <s> have been nativized in the Mayan language by giving them the <c> (Yucatec) and/or <ch> (Chol and Quiche) sound.

**Otomi and Olmec/Malinke-Bambara:** Otomi and Olmec also share many features in grammar, phonology and morphology. This is interesting because Marquez (1956) claimed that the Otomi had probably mixed in the past with Africans. Quatrefages (1889) also believed that Africans formerly lived in Florida, the Caribbean and Panama. Beltram (1972) admits a profound influence of Manding slaves in colonial America, but due to their enslavement during the slavery period can not account for the genetic relationship which exist between Otomi and Manding.

Manding is closely related to old Otomi, rather than the Mezquital dialect. As a result most of the terms compared herein are taken from Neve y Molina (1767) and Manuel Orozco y Berra's *Geografia de las lenguas y Carta Ethnografica de Mexico*.

Although Neve y Molina's (1767) work is over 200 years old, most of the terms he collected agree with contemporary Otomi terms in most details, except for the lack of diacritic marks and nasalized vowels or glottalized consonants. For example, whereas in the Muger Otomi dialect we find *danxu* 'woman', Neve y Molina (NyM) had *dansu*; Mudurar dialect *da* 'ripe, mature', NyM *da* 'id.'; Ojo Na *daa* 'eye', NyM *daa* 'id.'; Hija *ttixu* 'son', NyM *ti*; and Diente Na *tzi* 'tooth', NyM *tsi*.

The phonology of contemporary Otomi can be explained by evolution. The sound change from *s* > *z* in the terms for 'woman' and *s* > *x* for 'tooth', can be explained as a normal historical transition from one Otomi phoneme to another. The addition of the Otomi possessive *na* to the actual words for 'eyel' and 'tooth'.

The orthography for Otomi dialects has been a focus of controversy for many years. Bartholomew (1968) is a leading advocate for the illustration of tone in any discussion of Otomi. Bernard (1980) on the other hand, has noted the desirability of vowels in a practical spelling/orthography of Otomi. But, both in Otomi and Manding, tone plays an important role.

Other affinities exist between Otomi and Olmec. As in Maya, the phonemic syllable in Otomi is primarily CV and a tone. All of these languages are agglutinative. In both Olmec/Manding and Otomi the words are formed by adding two different terms together or an affix. Manual Orozco, records *ka-ye* as the Otomi word for 'holy man'. This term is formed by *ka* 'holy' and *ye* 'man'. Another word is *da-ma* 'mature woman'. This word is formed by *ma* 'woman' and *da* 'mature, ripe'.

Otomi and Olmec/Manding share grammatical features. The Otomi *ra* 'the', as in *ra c*, 'the cold' agrees with the Olmec/Manding -*ra* suffix used to form the present participle e.g., *kya-ra* 'the envoy'.

The Otomi use of *bi* to form the completed action agrees with the Olmec/Manding verb 'to be' *hi*. For example, Otomi *hi du* 'it died' and *hi zo-gi* 'he left it', is analogous to Manding a *bisa*. Otomi *da* is used to form the incomplete action e.g., *ci* 'eat': *daci* 'he will eat'. This agrees with the Manding *da*, *la* affix which is used to form the factitive or transitive value e.g., *la bo* 'to take the place'. In addition Otomi ? *no*, is the completive e.g., *bi*



?no mbo ra 'he was inside his house'. This shows affinity to the Olmec/Manding suffix of the present participle -no, e.g., *ji la-sigi-no* 'dormant water'.

The Mezquital Otomi pronominal system shows some analogy to that of OlmecManding, but Neve y Molina's, Otomi pronouns show full agreement:

First	Second	Third
Otomi	ma i.e.,	a
Manding	n', m' i.e.,	a

There are also several Olmec/Manding loans in Otomi from the basic vocabulary including:

English	Otomi	Olmec/Manding
son/daughter	tʔi,ti	de,di
eyes	da	do
brother	ku	koro
sister	nkhu	ben-k
lip	sine	sine
mouth	ne	ne
man	ta/ye	tye/kye

The Otomi and Olmec/Manding languages also have similar syntax e.g., Otomi *ho ka ra 'ngu* 'he makes the houses', and Manding *a k nu* 'he makes the family habitation (houses)'.

**Mixe and Olmec/Malinke-Bambara:** There are a number of Olmec/Malinke-Bambara loans in Mixe. The Mixe discussed in this section is Qaxacan, and include words from Mazatec, Chinantec, Mixtec and Chatino.

The Mixe has surprising Malinke-Bambara loans. These loans presented in Fig. 10, include parts of the body, nouns for wind, house night and village, agricultural terms (land of cultivation, maize, tomato) plus political terms such as lord, village and king.

As among the Mayans, the Mixe like the Malinke-Bambara prefix their pronouns.

Mixe: n' 'me, I'; m 'you; yi, y 'he, she, it, the'  
n' amido:y "I ask"  
y pe tp "he will sweep it'

In Malinke-Bambara we would have *a ba* " his mother"; *a be so* " he is at home', <a>= 'she, he, it'. In Table 6 we can see the Olmec/Malinke-Bambara loans in Mixe.

Among the Malinke-Bambara loans in Mixe, there was full correspondence between the <t>, <m> and <k> in both languages. In other cases there was contrast between:

Table 6: Olmec/Malinke-Bambara loans in Mixe

Cahp	heaven	sa
Cl	squach	si
su	night	su
co:n	to leave	ta, tyo
it	place	ta
Kahp	small town	ka, suffix joined to the name of a locality
kam	planting field	ga, gba, ka
ko/ku	head	ku (n)
koh	to plant, build	ko 'to create'
ko:ng	king, lord	ko 'person deserving respect'
koya	tomato	koya
kok	maize flower	ka
kats	black maizeka	
kushi	calendar priest	jose 'priest of a cult'
may 'to divine' ma'	happy issue; to understand'	
lll:P	to plant	mgba
po:b	white	bo, po (superlative of white)
poh,po'	wind	fo 'arid air'
purap	cultivating tool	faalo, faara 'hoe'
shi	day, sun	SI-sora
sho:sh	snake	sa
tuk	house	tu, du
tun	hill	tu 'heap, raising ground'
uk	dog	wulu

p ----- f    p ----- b  
sh ----- s    t ----- d  
c ----- s    n ----- m  
c ----- t

The contrast between the Mixe <c> and Malinke-Bambara <t> is most interesting because we have also observed this same pattern in the Mayan languages. It also interesting to note that many Malinke-Bambara loans in Mixe that begin with the <s> consonant have been nativized by changing this <s> into a <c>, just as the Yucatec speakers had done for their Olmec loans beginning with <s>.

It is interesting to note that the Mixe loan po' 'wind', is derived from MalinkeBambara fo / po 'wind'. This is surprising because we find that in Mixe some words with an initial <f> are pronounced with a <p> sound, e.g., pishka d 'higist dignitary', a Nahuatl loan word.

The Olmec appear to have played an important role in introducing agriculture to the Mixe. This is obvious not only in the large number of Malinke-Bambara loans for plants in Mixe, but also the term they use for cultivation.

The Mixe make it clear that cultivation takes place on the humid bottom land they call ta : k kam . This Mixe word can not be explained in Mixe-Zoque. But when we look at this word from the perspective of the Olmec language we find that it comes from three Malinke-Bambara words ta ka ga 'this is the place of cultivation':

ta 'place'  
ka 'to be'  
ga 'terrain of cultivation, act of planting, to plant'

The loans in Mixe make it clear that they were probably hunter-gatherers when the Olmec (Malinke-Bambara) speaking people came to Qaxaca in search of minerals to make their giant heads and jade for their many artifacts.

The Mixe appear to have used the Olmec loan ko 'head of something', to construct many words in Mixe. For example:

Mixe		Bambara	
ko ca'ny	'chief snake'	kun-sa	'head snake'
kocu	'of the night'	ku su	'head night'
kodung	'mayor'	ku(n)dugu	'head afland, chief'

The Mixe term for calendar priest or kushi is probably also a loan from Olmec. The Olmec (Malinke-Bambara) term for 'time' is sinye and san means 'year, sky'. This suggests that the Mixe term kushi 'calendar priest, head priest', may come from the combination of Olmec ko 'head' and sinye 'time' or ko-sinye 'head time (keeper)'.

The Mixe nativization of ko-sinye > kushi, would not be too surprising, since the Mixe, if they were originally hunter-gatherers would have had no need for a person to record the seasons "a calendar priest", until they began the domestication of the crops introduced to Qaxaca by the Olmec people when they settled the region to exploit the rich mineral deposits found in this part of Mexico.

## DISCUSSION

There are a number of motivations behind borrowing. In general borrowed words usually reflect specialized forms of discourse, new technology, new artifacts and cultural items (Hock and Joseph, 1996). As a result, many borrowed lexical items refer to foreign fauna and flora and prestigious religious terms.

Whenever speakers of different languages are in contact borrowing can occur. Terms that are borrowed may effect the phonology, syntax and morphology of the recipient language (Romaine, 1995; Weinreich, 1968). As a result, terms can be partly or fully assimilated in the recipient language.

Consequently, in the Mayan transcription system <c'> represents an ejective affricate, <c> being the simple affricate <ts>. Consequently it has as one of its components an <s> sound, but it is not itself such a sound. (Another transcription of the same sound is <tz'>.) Depending on transcription, <c> can represent either <k> or <ts>. The development of the <c'> sound in the Mayan languages is probably the main feature substitution of the native <c> phonemes for the Olmec (Malinke-Bambara) <s> phoneme, so the new Olmec terms from the domain of religion could be integrated into Mayan morphology in Pre-Classic times.

The Olmec loan words in the Mexican languages make it clear that socialization is the main determinant for lexical borrowing by diverse linguistic communities in Mexico not lexical need (Romaine, 1995). The Olmec were recognized as a high culture by other Meso-Americans. As a result, the primary motivation for borrowing Olmec terms was prestige (Grosjean, 1982; Hock and Joseph, 1996; Romaine, 1995; Weinreich, 1968).

Borrowing is generally the result of two factors need and prestige (Hock and Joseph, 1996; Grosjean, 1982; Romaine, 1995; Weinreich, 1968). Weinreich (1968) noted that: "lexical borrowings can be described as a result of the fact that using ready-made designations is more economical than describing things afresh".

Nouns are the most frequently borrowed terms. But borrowing can occur in 'core' vocabulary (body parts, numbers, personal pronouns, etc.) (Scotton and Okeju, 1973). The primary motivation behind borrowing terms in the core domain is prestige (Grosjean, 1982; Weinreich, 1968).

The widespread adoption of Olmec/ Malinke-Bambara lexical and grammatical features in the Mayan, Mixe and Otomi languages indicate a close relationship among the speakers of these languages in Pre-Classic Mexico. The shared diffused grammatical, lexical and phonological features discussed in this paper are probably the result from an extended period of bilingualism in ancient Mexico involving the Malinke-Bambara speaking Olmecs, and their Otomi, Mayan and Mixe neighbors.

The comparison of Chol, Quiche and Yucatec to the Malinke-Bambara languages is a valid way to illustrate the ancient relationship between the Pre-Classic Maya and Olmec people who spoke a Manding language related to Malinke-Bambara.

Some researchers might claim that the Malinke-Bambara loan words in the Mayan, Mixe and Otomi

languages may have been adopted after Spain conquered Mexico. They might hold this view because millions of African slaves came to Mexico after 1500.

It is improbable to suggest that borrowing and coincidence can account for the pronominal agreement between Malinke-Bambara and Mayan languages, along with shared grammatical features and demonstrated sound shifts for two reasons (1) the accepted historical date for the meeting of the speakers of these languages is far too late to account for the grammatical affinities and corresponding terms found within these languages; and (2) borrowing is very rare from a culturally subordinate linguistic group (the African slaves) into a culturally dominant linguistic group (the Amerindians), particularly in the basic vocabulary areas.

The shift between Mayan <c>, <ch> and <t> is believed to have taken place in Pre Classic times. This is far too early for the presence of African slaves in Mexico. Moreover, the European slave traders moved from north to south in their recruitment of slaves. As a result, we find that up until the 1550's most African slaves taken to Spanish America came from areas above the Gambia river. Most of the earliest Mande speaking slaves did not begin arriving in the Americas until slaves began to be exported from the Gambian region of West Africa. By this time African slaves and Amerinds lived in separate worlds, with the Africans on the plantations and the Maya in their native villages.

The slave hypothesis for the introduction of Malinke-Bambara loans into Maya must also be rejected because people become bilingual mainly for status raising. There was no way that the status of the Mayan people would have risen by the adoption of terms spoken by slaves.

The archaeological data make it clear that many Pre-Classic Mayan sites were already settled by the Olmec when the Maya arrived as indicated by the first, Olmec ruler at Palenque. This suggest that the Mayan speakers adopted many Olmec terms to enhance their social political, commercial and economic opportunities in the Olmec urban centers.

The fact that the Malinke-Bambara loans in the Mayan languages reflect the high culture associated with the archaeological Olmec confirms the Mande-Olmec hypothesis. It confirms that theory that socialization is the main determinate behind lexical borrowing by a linguistic community, not lexical need.

It is interesting to note that many of the alleged Mixe-Zoque loans in the Mayan languages can be explained by Malinke-Bambara items. In Table 7, we list some of these Mixe-Zoque loan words.

Table 7: Mixe-Zoquean loans

Mayan	Malinke-Mixe-Zoquean	English	Bambara/Olmec
*pat		bark, skin	fata
chowen	pMZ	*cawi	monkey
me'	pZO	*m'a	deer
	pZO	*sah	Wing
c'iwan	pMi	*ciwa	squash
koya	Mi	koya	tomato
to'	pMi	:to:h	raIn
			tyo, dyo
			precipitation,2

The oral traditions of the Mixe maintain that agriculture and many other cultural features were introduced into Qaxaca by strangers. The presence of Malinke-Bambara loans for Mixe cultivated crops and even the calendar priest, support this Mixe oral tradition. This confirmation of the Mixe oral tradition, make it impossible to claim that the Mixe-Zoque speakers were the archaeological Olmec, since the Mixe point to another, more advanced group as the stimulus behind their civilization.

## CONCLUSION

The Olmec left us many inscriptions which allow us to understand the Olmec language. These inscriptions allow us to understand the Olmec language and compare this language to languages spoken in Mexico today.

The Olmec used two forms of writing a hieroglyphic script and a syllabic writing system. The hieroglyphic Olmec script a picture writing system created by joining Olmec syllabic signs to create pictures.

The Olmecs spoke a Manding language (Warkentin and Scott, 1980). This has been proven by the decipherment of the Olmec inscriptions (Winters, 1979, 1980, 1997). Due to the early spread of the Manding language during the Olmec period we would expect to find a large number of Olmec (Malinke-Bambara) loan words Amerind languages. This assumption was proven correct.

The Olmec inscriptions on portable items such as incised celts and scepters were sacred relics, containing the obituaries of great rulers, talismanic messages, or symbols of authority. These inscriptions indicate that the Olmec or Xi people were very religious and that the tombs and graves of Xi dignitaries served both as a talisman, and shrine for the common people.

The linguistic evidence presented above makes it clear that the Olmec loans in the Mexican languages are culture terms that relate to specialized forms of discourse in the area of religion and agriculture. An examination of

the seventy plus loans in the Mayan languages include terms for cultivated plants (gourd, squash, maize and tomato), religion (sky, holy, serpent, sun, sacred rain torch), polity (village, house, lord, truth, law, land), arrows, boat, and other terms. The adoption of these term agree with the great role the Olmec people are believed to have played in the raise of Mexican civilization. The gratuitous borrowings of terms already in the Mayan language, probably gave the Mayan immigrants entry into the Olmec world. The presence of Olmec/Manding terms in Mixe, Mayan and Otomi are sharp indications of the assimilative power of Olmec society.

Many of these loan words are from the basic vocabulary. They support the view that in ancient times Mayan speakers lived in intimate contact with the Mande speaking Olmec people. Moreover this is further confirmation of Leo Wiener's theory in Africa and the Discovery of America that the religion and culture of the Meso-Americans was influenced by Mande speaking people from West Africa. These Mande speaking people were the Olmec.

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